Application No. 10/564,589 Reply to Office Action of July 1, 2008

AMENDMENTS TO THE CLAIMS

Claims 1-10 (Canceled)

11. (Currently Amended) A process for recovering at least one polymer in solution in a solvent which comprises precipitating by means of a non-solvent fluid, wherein the precipitation takes place in a precipitation medium comprising two dispersants of which one (dispersant (I)) has a greater affinity for the non-solvent and the other (dispersant (II)) has a greater affinity for the solvent and wherein the dispersant (I) has a DH of 65 % to 90 % and the dispersant (II) has a DH less than or equal to 60 %.

- 12. (Previously presented) The process according to claim 11, wherein the polymer is PVC.
- 13. (Previously presented) The process according to claim 11, wherein:
- the non-solvent is introduced gradually into the precipitation medium and, in the course of this introduction, there is first a phase separation (into a continuous phase rich in solvent, in which the polymer is dissolved, and into a disperse phase, consisting of droplets rich in non-solvent) and then there is a phase inversion (the continuous phase then becoming the phase rich in non-solvent, and the disperse phase becoming the phase rich in solvent containing the dissolved polymer),
- the non-solvent is initially introduced into the precipitation medium in liquid form only and in a quantity (Q') which is not zero but is less than the quantity (Q) required to bring about the phase inversion, and is subsequently introduced into the precipitation medium at least partly in vapor form.
- 14. (Previously presented) The process according to claim 11, wherein the dispersant (I) is primarily added to the precipitation medium before phase inversion.
- 15. (Previously presented) The process according to claim 11, wherein the dispersant (II) is primarily added to the precipitation medium after phase inversion.

Application No. 10/564,589 Docket No.: 05129-00117-US

Reply to Office Action of July 1, 2008

16. (Currently amended) The process according to elaim 15 claim 14, wherein the dispersant (II) is primarily added to the precipitation medium after phase inversion.

17. (Previously presented) The process according to claim 11, wherein the entirety of the dispersant (I) and a minority weight fraction (less than 50%) of the dispersant (II) are introduced into the precipitation medium before the non-solvent is added and the remainder of the dispersant

(II) is introduced into the precipitation medium after phase inversion.

18. (Previously presented) The process according to claim 16, wherein the entirety of the dispersant (I) and a minority weight fraction (less than 50%) of the dispersant (II) are introduced into the precipitation medium before the non-solvent is added and the remainder of the dispersant (II) is introduced into the precipitation medium after phase inversion.

19. (Previously presented) The process according to claim 11, wherein the non-solvent is water and the dispersants are selected from cellulose ethers and polyvinyl alcohols.

20. (Previously presented) The process according to claim 18, wherein the non-solvent is water and the dispersants are selected from cellulose ethers and polyvinyl alcohols.

21. (Previously presented) The process according to claim 11, wherein the dispersants are polyvinyl alcohols having different degrees of hydrolysis, the dispersant (I) having a degree of hydrolysis (DH) greater than that of the dispersant (II).

22. (Previously presented) The process according to claim 20, wherein the dispersants are polyvinyl alcohols having different degrees of hydrolysis, the dispersant (I) having a degree of hydrolysis (DH) greater than that of the dispersant (II).

23. (Cancelled)

24. (Cancelled)

25. (Previously presented) A process for recycling at least one article based on at least one polymer which comprises:

3

Docket No.: 05129-00117-US

Application No. 10/564,589 Reply to Office Action of July 1, 2008

- a) optionally shredding the article into fragments with an average size of 1 cm to 50 cm
- b) contacting the article or article fragments with a solvent able to dissolve the polymer
- c) recovering the polymer in solution using a process according to claim 11.
- 26. (New) A process for recovering at least one polymer in solution in a solvent which comprises precipitating by means of a non-solvent fluid, wherein the precipitation takes place in a precipitation medium comprising two dispersants of which one (dispersant (I)) has a greater affinity for the non-solvent and the other (dispersant (II)) has a greater affinity for the solvent and wherein:
- the non-solvent is introduced gradually into the precipitation medium and, in the course of this introduction, there is first a phase separation (into a continuous phase rich in solvent, in which the polymer is dissolved, and into a disperse phase, consisting of droplets rich in non-solvent) and then there is a phase inversion (the continuous phase then becoming the phase rich in non-solvent, and the disperse phase becoming the phase rich in solvent containing the dissolved polymer),
- the non-solvent is initially introduced into the precipitation medium in liquid form only and in a quantity (Q') which is not zero but is less than the quantity (Q) required to bring about the phase inversion, and is subsequently introduced into the precipitation medium at least partly in vapor form

wherein the dispersant (I) is primarily added to the precipitation medium before phase inversion and the dispersant (II) is primarily added to the precipitation medium after phase inversion.